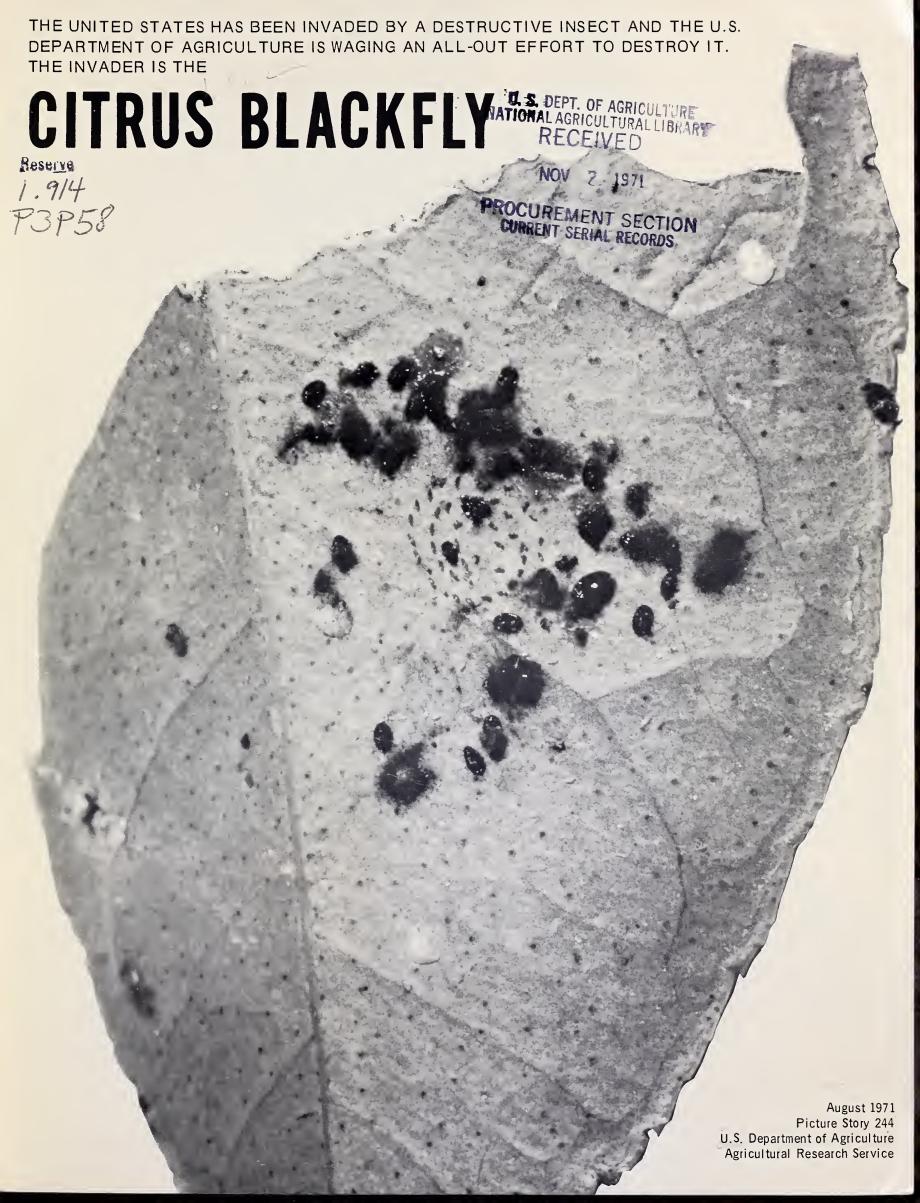
## **Historic, Archive Document**

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CITRUS BLACKFLIES -- a scale insect that is one of the world's worst pests of citrus trees invaded Brownsville, Tex., in April 1971. USDA's Agricultural Research Service kept the infestation from spreading beyond this border town by imposing emergency Federal quarantine restrictions.

ARS and the Texas Department of Agriculture are cooperating in a campaign to eradicate the Brownsville infestation. Plants and trees susceptible to the blackfly are sprayed with a mixture of either one-half pound of Dimethoate or eight-tenths of a pound of malathion per 100 gallons of water. Both are nonpersistent chemicals not toxic to birds, wildlife, or humans as used in the CBF program.

Blackflies damage leaves by sucking the sap from leaf tissues. They also excrete a "honeydew" that is a growing medium for a black, sooty mold damaging to leaves and fruit. Even brief blackfly infestations can reduce citrus production by as much as 50 percent, while those lasting over a year can cause almost 100 percent crop failure.

In recent years, citrus blackfly populations have been building up in Mexico, close to the U.S. border, making the Brownsville invasion the third this country has suffered. Previous citrus blackfly invasions—in south Texas and Key West, Fla.—were halted.

U.S.-Mexican cooperation kept this Nation free of the destructive blackflies between the last invasion in 1956 and the present outbreak. This international cooperation involves the release of parasites in infested areas of Mexico, maintaining a chemical control zone south of the border, and establishment of cooperative quarantines.





ON THE COVER: Citrus blackfly eggs, arranged in a characteristically spiral pattern; larvae; and pupae are shown on a single leaf (0571X\(^1\)68-\(^1\)4). ABOVE: A tree is checked for infestation. At one time, every potentially susceptible plant in threatened areas had to be inspected. Similar results are now achieved with much less expenditure of time and effort through the use of scientifically determined statistical surveys (0571X\(^1\)467-15). IEFT: Officials contact residents in neighborhoods found to be infested. All aspects of the control program are explained, with emphasis on safeguards that should be followed prior to, during, and after spraying (0571X\(^1\)468-16).



LEFT: Spraying is done selectively with ground equipment on susceptible plants only (0571X468-26). BELOW LEFT: Quarantines restrict the shipment of any susceptible plants from the area unless they have been inspected and certified "pest free" by plant protection inspectors (0571X464-3). BELOW RIGHT: Border inspection for fruit or plants harboring the blackfly helps cut down on the numbers of the pest entering this country (0571X463-20). BOTTOM: Each morning during the operation the findings of the survey crews are coordinated with the spray crews (0571X466-14).







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AS each block is surveyed, it is recorded as being either "clear" or "infested." This information is passed along to the spray crews as soon as possible (0571X466-18).

Magazines and newspapers may obtain 8x10 prints of these photographs free from the Photography Division, Office of Information, U.S. Department of Agriculture, Washington, D.C. 20250. Specify title and number of this publication.